



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

- Cephalozia divaricata* (Smith) Dumort.
“ *lunulæfolia* Dumort.
“ *myriantha* Lindb.
“ *serriflora* Lindb.
Chiloscyphus ascendens Hook. & Wils.
“ *polyanthos rivularis* (Schrad.) Nees
Cololejeunea Biddlecomiae (Aust.) Evans
Frullania Asagrayana Mont.
“ *Eboracensis* Gottsche
- Jungermanniaceae
Geocalyx graveolens (Schrad.) Nees
Harpanthus scutatus (Web. & Mohr.) Spruce
Jamesoniella autumnalis (DC.) Steph
Jungermannia lanceolata L.
Kantia trichomanis (L.) S. F. Gray
Lejeunea cavifolia (Ehrh.) Lindb.
Lapidozia reptans (L.) Dumort.
Lophocolea heterophylla (Schrad.) Dumort.
Lophozia alpestris (Schleich.) Evans
“ *barbata* (Schrad.) Dumort.
“ *gracilis* (Schleich.) Steph.
“ *incisa* (Schrad.) Dumort.
Marsupella emarginata (Ehrh.) Dumort.
Nardia hyalina (Lyell.) Carringt.
Plagiochila asplenioides (L.) Dumort.
Porella platyphylla (L.) Lindb.
Ptilidium pulcherrimum (Web.) Hampe.
Radula complanata (L.) Dumort.
Scapania apiculata Spruce
“ *nemorosa* (L.) Dumort.
“ *subalpina* (Nees.) Dumort.
“ *undulata* (L.) Dumort.
Sphenolobus exsectaeformis (Bridl.) Steph.
“ *exsectus* (Schmid.) Steph.
“ *Hellerianus* (Nees) Steph.
“ *Michauxii* (Web.) Steph.
“ *minutus* (Crantz.) Steph.
Trichocolea tomentella (Ehrh.) Dumort. New York City.

A LIST OF MOSSES.

Collected on the Adirondack League Club Tract, Herkimer Co.,
New York.

BY ANNIE MORRILL SMITH.

- Amblystegium minutissimum* Sull. & Lesq.
“ *radicale*, Beauv.

- Amblystegium serpens* B. & S.
Anomodon apiculatus B. & S.
 " *attenuatus* Hueben.
Brachythecium accuminatum (Hedw.) Kindb.
 " *flexicaule* Ren. & Card.
 " *lætum* B. & S.
 " *plumosum* B. & S.
 " *rivulare* B. & S.
 " *rutabulum* B. & S.
 " *salebrosum* Hoffm.
Bryum bimum Schreb.
 " *nutans* Schreb.
 " *pendulum* Schimp.
Buxbaumia aphylla L.
 " *indusiata* Brid.
Campylium hispidulum Brid.
Catharinea angustata Brid.
 " *undulata* W. & M.
Ceratodon purpureus Brid.
 " *minor* Aust.
Climacium Americanum Brid.
Cynodontium virens Wahlenbergii B. & S.
Dicranella heteromalla Schimp.
Dicranum Drummondii Muell.
 " *flagellare* Hedw.
 " *fulvum* Hooker.
 " *fuscescens* Turn.
 " *longifolium* Hedw.
 " *montanum* Hedw.
 " *scoparium* Hedw.,
 " " *squarrosus* Sull. & Lesq
 " " *scoparoides* Schimp.
 " *undulatum* Turn.
 " *viride* Schimp.
Dicranodontium longirostre B. & S.
Eurhynchium strigosum Hoffm.
Fissidens adiantoides Hedw.,
Fontinalis antipyretica gigantea Sulliv.
 " *Dalicularica* B. & S.
Funaria hygrometrica (L.) Sibth.
Hedwigia ciliata Ehrh.
Hylocomium parietinum Lindb.
 " *proliferum* (L.) Lindb.
 " *Schreberi* DeNot.
 " *triquetrum* (L.) Lindb.
Hypnum chrysophyllum Brid.

- Hypnum crista-castrensis* L.
“ *curvifolium* Hedw.
“ *fertile* Sendt.
“ *Haldanianum* Grev.
“ *hispidulum* Brid.
“ *imponens* Hedw.
“ *palustre* Hedw.
“ *pratense* Koch.
“ *reptile* Rich.
Leucobryum albidum (Brid.) Lindb.
“ *glaucum* (L.) Schimp.
Limnobium molle Dicks.
Mnium affine Bland.
“ “ *elatum* B. & S.
“ *cuspidatum* Hedw.
“ *punctatum* Hedw.
“ *rostratum* Schwaegr.
“ *spinulosum* B. & S.
“ *subglobosum* B. & S.
“ *sylvaticum* Lindb.
Neckera oligocarpa B. & S.
“ *pennata* Hedw.
Plagiothecium demissum Limpr.
“ *denticulatum* (L.) Sch.
“ *depressum* Dixon.
“ *latebricola* Sch.
“ *Muhlenbeckii* Sch.
“ *pulchellum* (Dicks.) Sch.
“ *silesiacum* B. & S.
“ *striatellum* Lindb.
“ *sylvaticum* (Huds.) Sch.
Pogonatum brevicaule (Menz.) E. G. B.
“ *urnigarum* Beauv.
Polytrichum commune L.
“ *gracile* Menz.
“ *juniperinum* Willd.
“ *Ohioense* Ren. & Card.
“ *piliformum* Schreb.
Pylaisia intricata Schimp.
Sematophyllum recurvens (Michx.) E. G. B.
Tetraphis pellucida Hedw.
Thuidium scitum aestivale Aust.
Trematodon ambiguum Hornsch.
Ulota crispa Brid.
“ *Ludwigii* Brid.
Thuidium delicatulum Best.

Thuidium microphyllum (Lindb.) Best.

“ *recognitum* B. & S.

Sphagnum cymbifolium (Ehrh.) Hedw.

“ *squarrosus* Pers.

“ *acutifolium* Ehrh.

“ “ var. *rubellum* (Wils.) Russ.

“ “ “ *quinquefarinum* Lindb.

“ *intermedium* Hoffm.

“ *cuspidatum* Ehrh.

Brooklyn, N. Y.

LICHEN NOTES No. 3.

“Chemical Tests” in Determining Lichens.

G. K. MERRILL.

In 1866 the late Dr. William Nylander published the results of his experiments regarding the behavior of certain aqueous chemical solutions, when applied to the cortical and medullary layer of the lichen thallus. The chemical menstrua found most effective and useful were potassium-hydrate and calcium hypochlorite, symbolized as KHO and CaCl. The results obtained hinged on a capacity of the solutions employed to produce a coloration on application to that portion of the thallus to be tested. Dr. Nylander claimed to have found that different lichen species were differently affected by the reagent employed, but that individuals of one species were constant in the production of a given reaction. The object of the test was to assist “in not only the discrimination of many difficult and closely allied species, but also in associating varieties with their proper species, and in some instances in defining the affinities of genera.”

The novelty of constituting botanical varieties on purely chemical grounds aroused antagonism at the time, which has persisted more or less to the present day, but the unquestionable value of the discovery as an aid in the determination of established species, made converts of nearly the whole body of European lichenists. Among those to negative the value of “chemical tests” from the first, was the late Prof. Edward Tuckerman, and it is regretfully stated that his views were adopted with great uniformity by the later American investigators. It will be of interest to quote from the published words of those Americans who have written on this topic.

In the American Naturalist for April, 1868, Tuckerman first voiced the disapproval, and we will selectively quote from his paper. Under the caption, “Can Lichens be Identified by Chemical Tests?” he says: “I have gone through a large part of my North American and exotic lichens in the light afforded by these (Nylander’s) experiments and found the facts, if sometimes suggestive of more than is stated, generally clear: much clearer than the value attributed to them. Is it not indeed safe to say at once that species are not determined in botany by such tests?” “The observations cited are however incomplete; and derive from this not a little of their inter-